

REMARKS/ARGUMENTS

Claims 1, 3, 5-10, 12, 14-19, 21, 23-28, 30, and 32-38 are pending in the application. Claims 1, 10, 19, 28, 37, and 38 have been amended. Claims 2, 4, 11, 13, 20, 22, 29, and 31 have been cancelled without prejudice. Reconsideration is respectfully requested. Applicant submits that the pending claims 1, 3, 5-10, 12, 14-19, 21, 23-28, 30, and 32-38 are patentable over the art of record and allowance is respectfully requested of claims 1, 3, 5-10, 12, 14-19, 21, 23-28, 30, and 32-38.

Claims 1-2, 10-11, 19-20, 28-29, 37, and 38 are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. The Examiner submits that the rejected claims fail to produce tangible results. Applicants respectfully traverse, but, in order to expedite prosecution, Applicants have amended claims 1, 10, 19, 28, 37, and 38 to describe that executing the statement with the optimization information to perform one of fetching data from the data store and inserting data into the data store, wherein the bind-in structure and the statement have a same section number (e.g., Specification, page 14, paragraph 43 – page 20, paragraph 58; Figures 5-9). Applicants respectfully request withdrawal of this rejection in light of the amendments.

Claims 1, 3, 10, 12, 19, 21, 28, 30, 37, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal et al. (U.S. Patent No. 6351742) in view of Chow et al. (U.S. Patent No. 5875334). Applicants respectfully traverse.

Claims 2, 9, 11, 18, 20, 27, 29, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal et al. (U.S. Patent No. 6351742) in view of Chow et al. (U.S. Patent No. 5875334) and further in view of Kaluskar et al. (U.S. Patent No. 6,985,904). Applicants respectfully traverse.

Claims 2, 11, 20, and 29 have been incorporated into their respective independent claims 1, 10, 19, and 28. Therefore, Applicants will address the rejection of claim 1 with reference to the Agarwal, Chow, and Kaluskar patents.

Amended claim 1 describes, at bind time, storing optimization information in a bind-in structure wherein the bind-in structure has an associated section number (e.g., Specification, page 7, paragraph 18; page 9, paragraph 25). When executing a statement, when performing

bind-in of host variables, data in an application structure received with the statement is compared with optimization information in the bind-in structure, wherein the application structure includes data to be inserted into a data store for an insert statement and stores data retrieved from the data store for a fetch statement and wherein the optimization information includes at least one of data type, length, Coded Character Set Identifier, an array size, an indication of whether conversions are required, and an indication of whether the required conversions are valid (e.g., Specification, page 8, paragraph 23). When there is a match between the data in the application structure and data in the optimization information in the bind-in structure, the statement is executed with the optimization information to perform one of fetching data from the data store and inserting data into the data store, wherein the bind-in structure and the statement have a same section number (e.g., Specification, page 11, paragraph 32; page 12, paragraph 39). When there is not a match between the data in the application structure and the optimization information, optimization information is regenerated and the statement is executed with the regenerated optimization information to perform one of fetching data from the data store and inserting data into the data store (e.g., Specification, page 11, paragraph 35).

The Agarwal patent describes a list of arguments can be passed to the optimizer, a description of the arguments in the database can be passed to the optimizer, and the optimizer then estimates the cost for each execution plan (Col 3, line 66 – Col. 4, line 39). The estimated costs may be generated by use of the previously calculated selectivity value, and the optimizer then selects for execution the execution plan having the lowest relative cost (Col. 4, lines 39-42). At Col. 8, lines 1-22, the Agarwal patent describes a database statement that queries for all entries from Table3 in which the values of the column Table3.col equal $\arctan(x)$. The Agarwal patent here compares values of columns in a table with $\arctan(x)$. Applicants respectfully submit that this does not teach or suggest, at bind time, storing optimization information in a bind-in structure wherein the bind-in structure has an associated section number, and, when executing a statement, when performing bind-in of host variables, *comparing data in an application structure received with the statement with optimization information in the bind-in structure*, wherein the application structure includes data to be inserted into a data store for an insert statement and stores data retrieved from the data store for a fetch statement and wherein the optimization information includes at least one of data type, length, Coded Character Set

Identifier, an array size, an indication of whether conversions are required, and an indication of whether the required conversions are valid.

As to, when there is a match between the data in the application structure and data in the optimization information in the bind-in structure, executing the statement with the optimization information, the Examiner cites the Agarwal patent at Col. 4, lines 41-44, which describes that the optimizer then selects for execution the execution plan having the lowest relative cost. First, this execution plan is not selected based on whether there is a match between the data in the application structure and data in the optimization information in the bind-in structure. Second, Applicants respectfully submit that selection of an execution plan does not teach or suggest, when there is a match between the data in the application structure and data in the optimization information in the bind-in structure, executing the statement with the optimization information to perform one of fetching data from the data store and inserting data into the data store, wherein the bind-in structure and the statement have a same section number and, when there is not a match between the data in the application structure and the optimization information, regenerating optimization information and executing the statement with the regenerated optimization information to perform one of fetching data from the data store and inserting data into the data store.

Also, there is no teaching or suggestion in the Agarwal patent that the bind-in structure used for comparison with the execution structure has a same section number as the statement.

The Chow patent does not cure the defects of the Agarwal patent.

The Kaluskar patent describes at Col. 3, lines 57-64, that if a match is not found, then compilation proceeds. Continuing with compilation does not teach or suggest, when there is not a match between the data in the application structure and the optimization information, regenerating optimization information and executing the statement with the regenerated optimization information to perform one of fetching data from the data store and inserting data into the data store.

Thus, amended claim 1 is not taught or suggested by the Agarwal, Chow or Kaluskar patent, either alone or in combination.

Claims 19 and 37 are not taught or suggested by the by the Agarwal, Chow or Kaluskar patents, either alone or in combination, for at least the same reasons as were discussed with respect to claim 1.

Claims 10, 28, and 38 describe bind-out, rather than bind-in (as described in claim 1). Applicants respectfully submit that claims 10, 28, and 38 are not taught or suggested by the by the Agarwal, Chow or Kaluskar patents, either alone or in combination, for at least the same reasons as were discussed with respect to claim 1.

Dependent claims 3, 9, 12, 18, 21, 27, 30, and 36 incorporate the language of independent claims 1, 10, 19, and 28 and add additional novel elements. Therefore, dependent claims 3, 9, 12, 18, 21, 27, 30, and 36 are not taught or suggested by the Kaluskar patent or the Crone patent, either alone or in combination, for at least the same reasons as were discussed with respect to claims 1, 10, 19, and 28.

Claims 5, 14, 23, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal et al. (U.S. Patent No. 6351742) in view of Chow et al. (U.S. Patent No. 5875334) and further in view of Desai et al. (U.S. Patent No. 6567816). Applicants respectfully traverse. Additionally, Applicants respectfully submit that the rejection is moot in light of the new amendments.

The Desai patent does not cure the defects of the Agarwal and Chow patents. For example, the Desai patent does not teach or suggest, the subject matter of claims 1, 10, 19, and 28. Therefore, claims 1, 10, 19, and 28 are not taught or suggested by the Agarwal patent, the Chow patent or the Desai patent, either alone or in combination.

Dependent claims 5, 14, 23, and 32 incorporate the language of independent claims 1, 10, 19, and 28 and add additional novel elements. Thus, claims 5, 14, 23, and 32 are not taught or suggested by the Agarwal patent, the Chow patent or the Desai patent, either alone or in combination, for at least the same reasons as were discussed with respect to claims 1, 10, 19, and 28.

Claims 6-8, 15-17, 24-26, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal et al. (U.S. Patent No. 6351742) in view of Chow et al. (U.S. Patent No. 5875334) and further in view of Jordan II et al. (U.S. Patent No. 5,875,442). Applicants respectfully traverse. Additionally, Applicants respectfully submit that the rejection is moot in light of the new amendments.

The Jordan II patent does not cure the defects of the Agarwal and Chow patents. For example, the Jordan II patent does not teach or suggest the subject matter of claims 1, 10, 19, and 28. Therefore, claims 1, 10, 19, and 28 are not taught or suggested by the Agarwal patent, the Chow patent or the Jordan II patent, either alone or in combination.

Dependent claims 6-8, 15-17, 24-26, and 33-35 incorporate the language of independent claims 1, 10, 19, and 28 and add additional novel elements. Thus, claims 6-8, 15-17, 24-26, and 33-35 are not taught or suggested by the Agarwal patent, the Chow patent, or the Jordan II patent, either alone or in combination, for at least the same reasons as were discussed with respect to claims 1, 10, 19, and 28.

Conclusion

For all the above reasons, Applicant submits that the pending claims 1, 3, 5-10, 12, 14-19, 21, 23-28, 30, and 32-38 are patentable over the art of record. Applicants have not added any claims. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0460.

The attorney of record invites the Examiner to contact her at (310) 553-7973 if the Examiner believes such contact would advance the prosecution of the case.

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